

Vertical Gardening - by Terra Perma

Vertical gardening is a space saving strategy for small areas utilising walls, trellis, piping or any upright medium for plants to spread vertically and minimise their horizontal footprint

As permaculture designers we would like to stress that it is not a better, more desirable or easier gardening technique, but a way of growing productively in challenging areas restricted by space or lack of soil resources. Such spots include balconies, atriums and forecourts, patios and decks.

Unfortunately the modern building trend of a “McMansion” on a postage stamp of land, with limited outdoor space is a typical design brief. While this trend in housing is the current norm many of us will have bought these homes and are doing the best we can with the very limited space.

Water - The lynch pin of vertical gardening.

It's all about keeping the 'bed' watered/wet, how to get water into the soil, and keeping it there is always the tricky bit.

The smaller the packet of soil in the vertical garden 'bed' the quicker and easier they will dry out. The less water it can hold, and the less roots and thus plants it can support. Many techniques you see on the internet i.e. clear soda bottle 'beds' just won't work in hot dry climate of Perth. Also designs that use shade cloth to wrap the soil and material bags will dry out very fast.

What soil to use ?

The biggest issue other than the water is having soil that supports plants but doesn't get 'used up'. If you use all compost in longer term pots the soil will shrink down and compact in the bottom ruining your plant roots and soil. Use lots of 'inert' soil additives like vermiculite, biochar, zeolite these have a high surface area and act like a sponge but don't break down. You will need to do occasional liquid feeding but you won't need to report every time. A mix of 1/3 vermiculite, 1/3 cocopeat, 1/3 well blended compost is a good mix.

Consider - Do you need to elevate the soil ? Why not just elevate the plants ?

A large on ground planter box will produce much more plant, be cheaper and easier to manage. A simple wire or string, mesh, lattice, or anything that can be climbed or attached to, will allow the plants in your planter box to climb many meters up a vertical wall.

A frames, trellises, arch ways, and other vertical supports allow plants to temporarily use a vertical space in your garden without needing trees or buildings, this can be done for extra productivity or effect. These can be made out of weld mesh, wire doors,

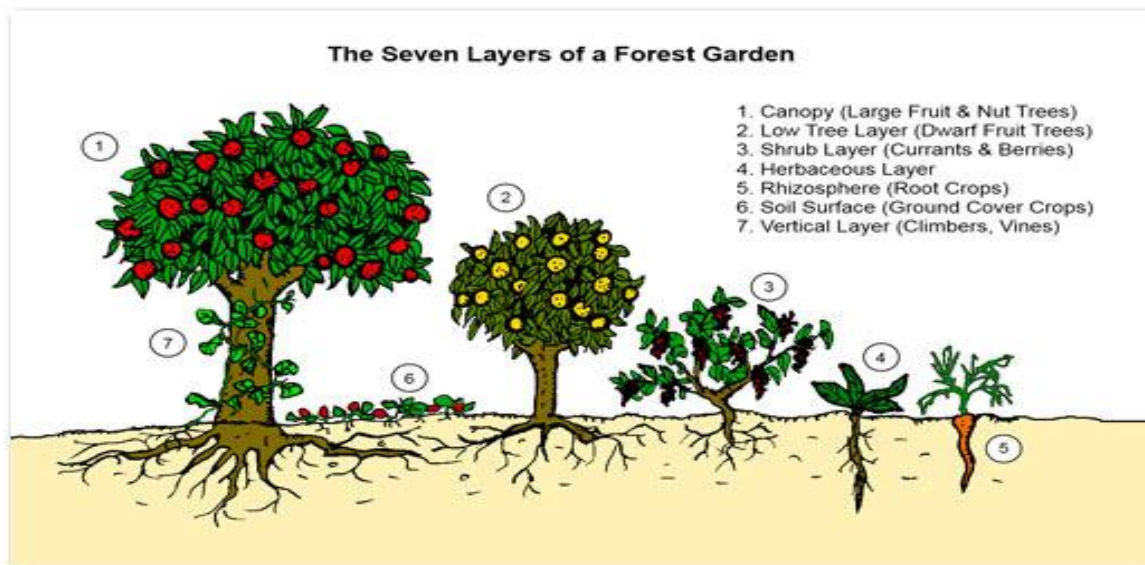
Climbing plants you might want in your garden include: peas, beans, cucumbers, pumpkins, nasturtiums, sweet potato, yams, gourds, chokos, lablab (perennial beans), wisteria, jasmine, lilac, hops. Also those needing heavier support like passionfruit, and grapes.

Or densely planted trees of varying heights

Nature, our ultimate teacher, uses the vertical dimension all the time.

Most plant communities exhibit some form of vertical stacking to maximise light, water and microclimate, the obvious example being the forests of the world. Despite many different forest types, they commonly display around seven layers of vegetation organised vertically to share the maximum number of resources. If the sun comes from the north your tallest plant is on the south side.

Any gardener, irrespective of the available square meter area, will also greatly maximise their own resources and likelihood of success if they mimic nature by stacking plants in this way. Food forest production yields in three dimensions, as opposed to a standard two dimensional cropping arrangement.



Types of 'bed' -

Mesh cages of soil - <http://framethisingrid.blogspot.com.au/2012/04/diy-vertical-garden.html>



Pallet cage for soil - <http://www.onehundreddollarsamonth.com/how-to-make-a-recycled-pallet-vertical-garden/>

Wire mesh Hanging Strawberry vertical bed - - <http://www.youtube.com/watch?v=LIN2zYnY4IA>

PVC tubes or Gutter row beds



Commercial Wall Garden/Gutter - <http://www.youtube.com/watch?v=wSjQehUZqjs>

Pots in PVC



Lucinda's great DIY vertical gardening system - Milkwood

Hanging Bags - Light to use but dry out easily



Vertical Barrel Planters

You tube Barrels Videos - <http://www.youtube.com/watch?v=2Rkv6rLBomY>

<http://www.youtube.com/watch?v=E6hLwNSFujo>

<http://www.youtube.com/watch?v=4GB5KIMenLk>

<http://www.kickstarter.com/projects/gardentowerproject/garden-tower-composting-50-plants-fresh-food-anywh>



Get olive barrels on gumtree search 'plastic barrel' or - 190L plastic drums with sealed lids for sale, all food grade. Pick up Success or Doubleview. For pick up in Doubleview call 0434206766 and Success 0424963667.

You might also like to check out this short but helpful Vertical garden website -

<http://www.easywaystosavemoney.com.au/blog/1098/verical-garden-5-of-the-cheapest-and-easiest-gardens>